



# Health Education: Always Approved but Still Not Always on Schools' Radar

Alyssa B. Mayer, Becky J. Smith, and Robert J. McDermott

## ABSTRACT

*Numerous reports and studies have touted the benefits of school health education for over five decades and extensive public health data support an association between education levels and health outcomes. This paper recounts the “tacit” approval given to school health education historically by reviewing reports issued by various governmental and nongovernmental organizations from the 1960s to the present. Whereas these reports and studies demonstrate an influence on the status of modern school health education programs, many of the barriers to effective school-based programs described 50 or more years ago continue to be challenges for school health education advocates. Additional elements that may further impact the delivery and of quality of school health education negatively in the next decade include legislation that places pressure on schools to improve students’ performance on subject areas that do not include health; a declining tax base for funding education programs in general; the deterioration or complete disappearance of school health education professional preparations programs; and evolving technology that alter the ways in which students learn.*

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## BACKGROUND

Over the past five decades, numerous reports and studies have touted the benefits of school health education and extensive public health data support an association between education levels and health outcomes.<sup>1</sup> For example, youth not completing high school have higher unemployment, lower health literacy and higher rates of illness and death than their graduating peers; moreover, high school graduation is associated with an increase in lifespan of six to nine years.<sup>1</sup> Health and social problems such as hunger, poor nutrition, substance abuse, teenage pregnancy, and violence in school contribute to absenteeism, a status which increases the risk of dropout.<sup>1-3</sup> Data from *Youth in Iceland*, a population-based, cross-sectional study of 6,436 Icelandic

youth, demonstrated that lower BMI, greater physical activity and proper nutrition were all associated with higher academic achievement, as well as better self-esteem. Poor nutrition negatively impacted self-esteem and academic achievement, as did higher BMI.<sup>4</sup> Health status not only impacts a student’s potential for academic success, but academic success, in turn, determines future employment options, self-efficacy and health status in adulthood.<sup>3</sup>

Schools have the potential to address the cognitive, physical, social and emotional health of the 95% of American children who are enrolled in these institutions; additionally, there is evidence that collaborations between schools and community health agencies result in improvements in academic achievement and the health status

of students, as well as the health of teachers and other school staff members.<sup>1,2</sup> Each school day is an opportunity for millions of

*Alyssa B. Mayer is a graduate research assistant in the Department of Community and Family Health, University of South Florida College of Public Health, 13201 Bruce B. Downs, Blvd. MDC 056, Tampa, FL 33612; E-mail: amayer@health.usf.edu. Becky J. Smith is a senior advisor, Health teacher, B.J. Smith Consulting Reston, VA 2019; E-mail: B.J.SmithConsultant@gmail.com. Robert J. McDermott is a professor of Health Education and Co-Director Florida Prevention Research Center in the Department of Community and Family Health University of South Florida, 13201 Bruce B. Downs Blvd. MDC 056, Tampa, FL 33612; E-mail: rmcdermo@health.usf.edu.*



students to learn about and practice health-promoting behaviors. Acquiring healthy habits at each stage of development is the primary component of prevention. Schools can provide the foundation for children to maximize learning at each grade level, contributing to improved health status and academic success.<sup>1</sup> Furthermore, students who are successful in school believe they have options for future success, which reinforces health-promoting behaviors and reduces the likelihood of negative health outcomes.<sup>5</sup> Although studies demonstrate that schools are capable of making a significant impact on the health of children and youth, the theme of this paper is the disparity between schools' potential contribution and the current reality. Whereas children in the United States are no longer at risk for many of the classic communicable diseases of the past, chronic diseases related to overweight and obesity, as well as new and emerging infectious diseases, threaten the health and well-being of increasing numbers of children.<sup>6,7</sup> Motor vehicle crashes, other unintentional injuries, homicide and suicide account for 70% of mortality in Americans under 24 years of age.<sup>8</sup> Only six types of behavior account for these and other major health problems: behaviors resulting in unintentional and intentional injury, such as violence and failure to wear seatbelts; drug and alcohol abuse, sexual behaviors resulting in pregnancy and sexually transmitted infections; tobacco use; poor nutrition; and lack of physical activity.<sup>9,10</sup> These risk behaviors are preventable, often established in youth, perhaps persisting into adulthood, and are closely related to self-esteem, academic achievement and success in later years.<sup>7-10</sup> If education is to be successful at impacting health promoting behaviors, it is essential to intervene before unhealthy behavior becomes deeply ingrained in one's lifestyle.<sup>7,11,12</sup>

This paper recounts the "tacit" approval given school health education historically. It is not a comprehensive review such as Means<sup>13</sup> undertook in the mid-1970s or the Institute of Medicine pursued in the 1990s.<sup>14</sup> Reports issued by various govern-

mental and nongovernmental organizations are the foundation of this presentation, with emphasis on their continued influence on the state of modern school health education programs, concluding with a summary of recommendations put forth by various stakeholders and speculation about the challenges facing school health education and the possible events that will continue to impact its momentum in the years to come.

### EARLY 20<sup>TH</sup> CENTURY INFLUENCES ON SCHOOL HEALTH EDUCATION IN THE UNITED STATES — 1900 THROUGH THE 1950s

School health education has evolved over the past 100+ years from a myriad of influences, including changes in philosophy of education, discoveries in medicine, wars and political upheaval, improved understanding of child development, professional leadership, efforts by governmental, nongovernmental, and voluntary organizations, colleges and universities, and financial support by philanthropic organizations and private and commercial groups interested in child health.<sup>13</sup>

The period from 1900 to the beginning of World War I was a time of slow but progressive growth in the field of health education. In 1916, the Johns Hopkins School of Public Health opened its doors, establishing itself as the first school of public health in the world.<sup>15</sup> Two years later, the Commission on the Reorganization of Secondary Education of the National Education Association (NEA) developed the seven cardinal principles of education: *health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure time, and ethical character*.<sup>7</sup> Concurrently, new health organizations were forming, and local, state and national efforts to improve child health through the schools had begun. In 1922, the Harvard-MIT School for Health Officers became the Harvard School of Public Health, influencing school health and health education for the remainder of the 20<sup>th</sup> century.<sup>16</sup> This early portion of the 20<sup>th</sup> century also was one of curriculum development in

physical training, hygiene, and temperance, as well as the establishment of the "open air" school movement.<sup>13</sup>

Arguably, the first law specifically requiring health education in schools came out of the Woman's Christian Temperance Movement and focused on alcohol abuse.<sup>17</sup> In 1924, Mary Spencer became the first person to graduate with a degree in health education, marking the beginning of a flurry of activity in the field, including national studies, conferences and collaborations exploring and expanding health education in general, and school health in particular.<sup>13,18</sup> Attention was re-focused on health in the 1930s, and later, in the 1940s, as thousands of Americans drafted to serve in World War II were deemed unfit for service due to health deficiencies.<sup>13</sup> In 1937, the American Physical Education Association (APEA) and the Department of School Health and Physical Education of the NEA merged to become the American Association for Health and Physical Education (AAHPE).<sup>19</sup> This reorganization of school health interests fell in line with the shifting climate of educational policy at the time and resulted in the beginning of a section on school health education within AAHPE. School health received widespread attention in 1942 with the publication of *Health in Schools*, a report by the American Association of Secondary School Administrators.<sup>20</sup>

Educational policy was further advanced with the passage of the GI Bill in 1944<sup>21</sup> and the Fulbright Act in 1946.<sup>22</sup> In 1950, the publication of a report entitled *Health in the Elementary Schools*, authored by the Department of Elementary School Principals of the NEA, set the stage for a new decade in school health.<sup>20</sup> Five years later, the 1955 White House Conference on Education brought together professionals from education and medicine to draft goals specific to school health.<sup>13</sup> The 1950s concluded with the passage of the National Defense of Education Act in 1958, and the 1959 statement from the Education Policies Commission of the States endorsing health, safety, and physical education as essential elements of school health.<sup>13,20</sup>



## SCHOOL HEALTH EDUCATION IN THE 1960s

### *The School Health Education Study*

After modest progress in the first half of the 20<sup>th</sup> century, the notion of comprehensive school health education (CSHE) began its accelerated metamorphosis in 1961 with the launch of the School Health Education Study (SHES), sponsored by the Samuel F. Bronfman Foundation.<sup>23</sup> The purpose of the study was to determine what U.S. children in grades 6, 9, and 12 knew about their health and health habits and to assess the status of health education in schools.<sup>13,23</sup> More than 17,000 students from 38 states participated.<sup>23</sup> Those conducting the study found that school health programs varied widely among schools and districts, and there was a great need for meaningful health-related curriculum in the public school system. Specifically, the evaluation identified several gaps in school health: *ineffective instruction, community resistance to some health topics, lack of parental support for practicing favorable health habits, lack of coordination among grade levels and schools, insufficient time for delivery of health education, indifference on the part of students, teachers, parents, administrators, and other school health staff members, and ineffectiveness of health courses absorbed into other subjects like physical education (PE) and biology.*<sup>23</sup> These findings resulted in the development of conceptual health curricula and the creation of the first CSHE framework.<sup>18</sup> The framework was the first formalized model for school health education for grades K-12, with specific recommendations at each grade level. The CSHE model has continued to evolve, and the influence of the original study also has persisted into the 21<sup>st</sup> century.<sup>19,24</sup>

## SCHOOL HEALTH EDUCATION IN THE 1970s

In the 1970s, school health advocates began to focus more on promoting state and federal legislation to require health education in schools and provide funding for these efforts. These initiatives resulted in the establishment of the Office of Comprehensive School Health within the U.S. Department of Education in 1978, during the

Carter Administration; it would be dissolved a few years later during the Reagan Administration.<sup>18</sup> A more lasting effort of advocacy on behalf of school health education during the 1970s was establishment of state level legislation and school codes that required and/or recommended comprehensive school health education in many states. Examples included initiatives in North Carolina, Virginia and Illinois. Most of this legislation is still on the books, but in many cases, it is no longer being monitored for compliance by state departments of education. Beginning in 1974 and continuing through 1999, 6 editions of the publication *School Health in America*<sup>25</sup> tracked state policies, including ones related to school health instruction. The 5<sup>th</sup> edition indicated that 35 states mandated or required school health instruction and an additional 7 states recommend it be taught.<sup>25</sup> Overall, 18 of those states legislated specific topics for inclusion in a CSHE program.<sup>25</sup>

### *The Report on the President's Committee on Health Education 1973*

In 1973, the U.S. Department of Health, Education and Welfare released its Report of the President's Committee on Health Education.<sup>26</sup> The report echoed the findings from the SHES of a decade before, namely that the quality and existence of school health education varied extensively throughout the U.S. The report illustrated that health education in the 1970s was largely neglected despite a rising demand for health care services. The Committee reported that the primary barriers to effective school health education were *antiquated laws, uninvolved parents, indifferent school administrators, unequipped teachers, and a lack of funding, research, evaluation and leadership in the field of health education.*<sup>26</sup> Many school health authorities would advance some of these same arguments today.

This report was notable for its emphasis on the importance of school health education for the well-being of the nation, as well as the sense of urgency in its recommendations. Ultimately, the recommendations of the Committee mirrored those of the SHES – that school health education needs be identified, that current school health programs

be described, and that advocacy and legislation be used to expand current program offerings and provide for the development of curricula appropriate to each grade level and age group.<sup>26</sup> The Report from the President's Committee on Health Education was not only a reiteration of the SHES, but also a precursor to many similar reports that would be drafted in subsequent years.

School health has always played some role in public education in the U.S.; however, despite recognition and acceptance of its importance to child and overall population health, the 1970s saw neither the widespread implementation of the recommendations from SHES nor those emanating from the Report of the President's Committee.<sup>13,18</sup>

## SCHOOL HEALTH EDUCATION IN THE 1980s

Descriptions of school health programs prior to the 1980s presented them as three-pronged entities, consisting of *health services, health education and the healthful school environment.*<sup>11</sup> This simplistic model changed in the 1980s with the introduction of the eight elements of comprehensive school health,<sup>27</sup> in part, through the Centers for Disease Control and Prevention's (CDC) Coordinated School Health Promotion (CSHP) program: (1) Health education; (2) Physical education; (3) Health services; (4) Nutrition services; (5) Counseling, psychological and social services; (6) Healthy school environment; (7) Health promotion for staff; and (8) Family/community involvement.<sup>28</sup> Concurrently, the World Health Organization (WHO) began to explore the HPS concept, which included many of the same foci.<sup>29</sup> The work of the CDC and the WHO, as well as other governmental and nongovernmental organizations, led to evaluation efforts, and several studies during the 1980s revealed the effectiveness of CSHE in terms of advancing knowledge, attitudes, and practices.<sup>18,30</sup>

### *The School Health Education Evaluation (SHEE) 1981-1985*

The School Health Education Evaluation (SHEE), sponsored by the CDC and the Office of Disease Prevention and Health Promotion (ODPHP), involved



30,000 children in grades 4 through 7 from 20 states.<sup>20,31</sup> Researchers found significant increases in health knowledge at participating schools when compared to control schools, especially in the area of substance abuse.<sup>31</sup> Decision-making skills related to health behaviors were particularly impacted by school health education curricula, and students involved in these programs also reported more favorable attitudes toward health behaviors and maintaining a healthy body. Furthermore, three times as many students in control classrooms began smoking in the first half of 7<sup>th</sup> grade compared to students in health education programs.<sup>11,31</sup> The SHEE provided clear evidence that health education programs in the school setting, particularly when the efforts are comprehensive and ongoing, result in improved knowledge, attitudes and behaviors, reaching stable levels after 50 classroom hours of health education.<sup>31</sup>

#### ***The National Adolescent Student Health Survey (NASHS) 1987***

The National Adolescent Student Health Survey (NASHS)<sup>32</sup> of 1987 was administered to 8<sup>th</sup>-grade and 10<sup>th</sup>-grade students in randomly selected classrooms carried out through a national probability sample of 217 schools in 20 states. Data were collected from 11,419 students in an average of three randomly selected classes at each participating school. The NASHS was jointly developed and funded by federal agencies: ODPHP, the Substance Abuse and Mental Health Administration (SAMSHA), and the Division of Adolescent and School Health (DASH) at CDC. The study, assessing both risk behaviors among U.S. adolescents, as well as their perceptions of risks, was the first such national survey since the SHES of the 1960s. Researchers found that schools had the potential to influence substantial reductions in morbidity and mortality from preventable causes by helping children and youth develop the knowledge, attitudes, beliefs and skills necessary to avoid specific risk behaviors.<sup>32</sup>

#### ***The Evaluation of Comprehensive Health Education in American Public Schools, 1988***

The Evaluation of Comprehensive Health Education in American Public Schools<sup>33</sup> was

conducted in 1988 by Louis Harris and Associates on behalf of the Metropolitan Life Foundation. The study compared schools without comprehensive health education to schools with these programs and found that students attending “healthy” schools had better health knowledge, more favorable attitudes towards health behaviors and better health habits than students without the benefit of health education.<sup>6,33</sup> The study also demonstrated that *more is better*, i.e., a linear relationship exists between health-related knowledge/behavior and years of health education received.<sup>6</sup> The Metropolitan Life Study placed particular emphasis on parents’ attitudes toward health education in schools, with surprising results. Over half of parents in the 1980s did not know what was being taught in their children’s health classes, even though both parents and teachers believed that parental involvement was a key component to the success of these programs.<sup>33,34</sup> Ninety-eight percent of parents stated that comprehensive health education was an important part of their children’s educational experience.<sup>33</sup> The Metropolitan Life Study also emphasized the benefits of a comprehensive approach to school health, i.e., the benefits of school health are maximized when students, teachers, administrators, health education professionals, parents and the community are involved in these efforts.<sup>33</sup>

#### **SCHOOL HEALTH EDUCATION IN THE 1990s**

Support for school health grew in the 1980s, thanks to federal funding for drug abuse prevention, school health demonstration projects, and HIV prevention education.<sup>11</sup> In turn, the 1990s were also defined by strong support for school health education, with major studies confirming the benefits of providing comprehensive health education to youth. The decade began with the first iteration of the national school-based Youth Risk Behavior Survey (YRBS) in 1990, part of the CDC’s Youth Risk Behavior Surveillance System (YRBSS) which monitors priority health-risk behaviors and the prevalence of obesity and asthma among youth

and young adults.<sup>34</sup> By the 1990s, it was well understood and widely agreed that schools not only play a major role in preventing and modifying unhealthy behaviors, but also can be a rich source of information about youth risk behaviors.<sup>18,34</sup>

The *National Education Goals*, established in 1989 under President George H. W. Bush, and the *Goals 2000: Educate America Act* established by President William Clinton<sup>11</sup> persuaded school health leaders to develop new strategies and find resources to support student health in the U.S. During the 1990s, the American Cancer Society (ACS), the largest voluntary health organization in the nation, dedicated the expansion of school health education as its number one advocacy goal.<sup>35</sup> To support this goal, in June 1992, the ACS convened 100 representatives from 40 national level health, education, and social services organizations to develop an action plan that would advance an agenda these organizations shared - the institutionalization of CSHE in the nation’s schools.<sup>35</sup> The plan addressed issues and set goals in support of CSHE in the following areas: (1) *policy*; (2) *awareness*; (3) *professional preparation and practice*; (4) *parent, family and community involvement*; (5) *educational outcomes*; (6) *standards*; and (7) *resources*. One important concept shared as an outgrowth of the development of the national action plan was: “Improving the health of children in the United States will require a broad range of interventions, including social, economic, educational and health specific foci. The institutionalization of Comprehensive School Health Education is only one step in the continuum of actions that must be taken to advance the health of the nation’s children. It is not, by itself, sufficient, but it is, by itself, necessary”<sup>35</sup> (p. 7).

With funding from the ACS, the American Association for Health Education (AAHE) convened a coalition of four health education organizations in July 1993 to write the National Health Education Standards (NHES), subsequently released in 1995.<sup>36</sup> An updated version of the standards, along with a plan for aligning local, state, and federal resources, was released



in 2007 which focused extensively on improving the assessment of health education skill development and the role of schools, communities and government agencies in providing access and equity for all youth to receive CSHE. The 2007 NHES also supported research of the National School Boards Association that 45 to 50 hours of school health instruction are needed to begin to affect attitudes and practices.<sup>36</sup>

Following the development of the 1995 standards, train-the-trainer workshops were presented across the nation to representatives from more than 35 states on how to implement the standards at state and local levels. The quality of the 1995 standards, and subsequent training events, resulted in nearly every state department of education adopting or adapting the NHES in the decade between 1995 and 2005. The decade of the 1990s was also one of international collaboration in school health. In 1995, the WHO spearheaded the Global School Health Initiative which evolved from the HPS concept originally proposed by the WHO in the 1980s, as well as work by UNESCO in health and nutrition from the same time period, and related projects by the World Bank and other international organizations.<sup>37,38</sup> The Ottawa Charter for Health Promotion<sup>28</sup> was yet another initiative that further supported a comprehensive approach to school health on an international level. This work was the culmination of demonstration projects and proposals coming from the fertile period of the 1980s, and each of these initiatives played a part in advocating for school health. The 1990s closed with the *Education for All World Education Forum* in Dakar in April of 2000<sup>38,39</sup> where an agreement was reached among major United Nations' agencies to coordinate action around common elements in each of their individual approaches to school health. The United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF), the WHO, the World Bank, and other organizations agreed on a common structure for school health programs, naming it the *Focusing Resources on Effective School Health* (FRESH) framework.<sup>38</sup> The

overarching message of FRESH is that good school health and nutrition is an essential element of ensuring education for all.<sup>39</sup> Four principles comprise the framework: (1) *Policy*, which ensures a safe and healthy school environment, (2) *School environment*, which guarantees access to safe water and sanitation, (3) *Education*, which provides children with the tools and skills to make healthy choices, and (4) *Services*, which include health services and the provision of healthy snacks in schools.<sup>39</sup> Together, the core components of the FRESH framework are a sound basis for effective and comprehensive school health, providing a consensus approach to school health on an international level.

#### *The Institute of Medicine Committee on Comprehensive School Health Programs in Grades K-12*

In 1993-94, the *Institute of Medicine (IOM) Committee on Comprehensive School Health Programs (CSHPs) in Grades K-12* was created to study the status of school health programs and address the "new social morbidities" of injuries, violence, substance abuse, risky sexual behaviors, psychological and emotional disorders, and problems due to poverty.<sup>14</sup> It was noted that many students lacked access to reliable health information and health care. As this study was evolving, the IOM was aware that many groups were already active in school health. Consequently, an external planning and advisory group was convened that identified a broad set of school health issues: (1) *education and curriculum*; (2) *health promotion and disease prevention*; (3) *health services*, and (4) *national strategies and policies that could potentially benefit from the study*.<sup>14</sup>

The IOM Committee was asked to develop a framework to guide: (1) *determination of desirable and feasible health outcomes of CSHPs*; (2) *examination of the relationship between health outcomes and education outcomes*; (3) *consideration of capacity elements necessary in schools for optimizing these outcomes*; (4) *appraisal of data concerning the effectiveness (including cost-effectiveness) of CSHPs*; and (5) *where apropos, recommendations of mechanisms*

*for wider implementation of programs with demonstrated effectiveness*.<sup>14</sup>

Upon conclusion of the IOM initiative, among its other recommendations, the Committee supported a resolution that all students receive sequential, age-appropriate health education annually during the elementary and middle or junior high grades, and that a one-semester health education course at the secondary level be a minimum requirement for high school graduation. It further recommended that instruction be based upon the NHES, draw from current curricula and priority areas, and be provided by qualified health education teachers. In addition, the IOM Committee recommended that all elementary teachers receive substantive pre-service health education content and methods to help infuse health instruction into the curriculum and prepare upper elementary teachers to lay the groundwork for the intensive middle or junior high health education program.<sup>14</sup>

Health education in schools has a long history and a substantial evidence base in support of the benefits and cost-effectiveness of teaching children the knowledge and skills to live healthier lives. Unfortunately, examples of CSHPs are few and far between, and there is little financial support for these programs, despite the enthusiasm of parents, teachers, and some policy makers. To estimate the gap that exists between the widespread support of school health and the lack of consistent CSHPs in the U.S. and abroad, it helps to understand the current state of school health, as well as the challenges to successful implementation of school health programs.

#### **SCHOOL HEALTH EDUCATION IN THE 21<sup>ST</sup> CENTURY — MOVING FROM PLATITUDES TO PERFORMANCE**

For over two decades, the WHO, the CDC, and many other national and international agencies have advocated for comprehensive school health education in the U.S. and abroad as part of an integrated approach to health promotion and primary



prevention of disease and disability.<sup>5</sup> In this century, support for school health education also has come from a number of federal programs. Most notably, the reauthorized State Children's Health Insurance Program (SCHIP) developed a comprehensive model for childhood obesity prevention with a \$25 million grant allocation for creation and implementation of a healthy lifestyle curriculum in schools.<sup>3</sup>

Although the Office of Comprehensive School Health had long been abolished at the U.S. Department of Education, the Office of Safe and Drug-Free Schools (OSDFS) was established in 2002<sup>40</sup> pursuant to the *Safe and Drug-Free Schools and Communities Act* part of the *No Child Left Behind Act of 2001* to assist drug and violence prevention activities within the nation's schools. The role of the OSDFS has become more comprehensive as can be seen through the titles of its various key initiatives: *Health, Mental Health, Environmental Health and Physical Education; Drug-Violence Prevention-State Programs; Drug-Violence Prevention-National Programs; Character and Civic Education*; and, *Policy and Cross-Cutting Programs*.

Despite the scientific challenges of measuring and evaluating results in the school setting, strong evidence exists for the effectiveness of school health programs in linking health-related behaviors and academic achievement.<sup>5,41</sup> Several studies and reports issued in the 2000s continue the argument in support of school health.

#### ***The School Health Policies and Programs Study (SHHPS) 2006***

The School Health Policies and Programs Study (SHHPS) is conducted every six years by the CDC to assess the status of school health programs nationwide.<sup>42,43</sup> SHHPS 2006 is the largest and most comprehensive study on school health ever conducted in the U.S.<sup>44</sup> It describes school health policies and programs across the eight school health components.<sup>26,42-44</sup> SHHPS also is the data source for 6 of the *Healthy People 2010* objectives.<sup>45</sup> In 2006, nearly 75% of states had policies stating that districts or schools will follow national or state health education guidelines. Seventy-two percent of states

required or encouraged districts or schools to follow health education standards based specifically on the NHES. Approximately 86.3% percent of all states, districts, and schools required the teaching of at least 1 of 14 health topics in elementary, middle, and high schools, and 60.8% required the teaching of at least 7 of 14 health topics. Less than 10% of all schools required the teaching of all 14 health topics in elementary schools, and less than 40% required the teaching of all 14 topics in middle or high schools. Approximately 67% of teachers of classes covering health subjects were certified, endorsed, or licensed by the state to teach health education at their specific secondary level.<sup>42</sup>

Between 2000 and 2006, the percentage of states and districts requiring schools to teach about human sexuality, violence prevention, and injury prevention increased.<sup>43</sup> During the same period, the percentage of states that had adopted a policy in favor of supporting the National Standards for Physical Education increased from 59.2% to 76.0%.<sup>43</sup> Perhaps most importantly, 85.7% of states had a council, committee, or team of people formally charged with coordinating school health activities and initiatives at the state level.<sup>43</sup> There is positive movement in favor of school health; states, districts and schools have policies in support of school health, the majority of teachers have training in specific health areas, and the range of health-related subjects being taught has increased in the past decade.

#### ***National Health Education Standards 2007***

After the original standards were released in 1995, a new panel of professionals was convened in 2004 to update and expand the NHES on behalf of the same four collaborating professional organizations.<sup>36</sup> The original and revised NHES<sup>36</sup> continue to provide the foundation for health-related curriculum development, and most states and districts require or encourage schools to follow health education guidelines based on the NHES.<sup>46</sup>

One of the most important benefits of the updated NHES was the support gener-

ated for schools and districts interested in applying these standards. Over 100 professionals from 40 states and the District of Columbia were provided training related to the NHES and performance indicators for school health programs as part of the ACS's National Health Education Standards Training-of-Trainers. Furthermore, the former DASH at CDC dispatched trainers to provide workshops on how to use these tools. Finally, many state departments of education provided training on developing health-related curricula and evaluating students' health related skills.<sup>46</sup>

#### ***Alliance for a Healthier Generation Parent Attitudinal Survey, 2009***

Results from a study on parental attitudes conducted for the Alliance for a Healthier Generation by KRC Research<sup>47</sup> found that more than 92% of parents consider PE and health education as important as language arts, math and science. Ninety-six percent of parents believe physical activity can improve academic performance, and 99% say that proper nutrition is essential to learning. Survey results also illustrate that one of parents' main concerns is that budget cuts made to health programs and recess due to increased pressure to improve standardized test scores may be detrimental to student health. Finally, four-fifths of parents report taking on one or more health-related activities or advocacy efforts in their children's schools.<sup>47</sup> Almost every parent surveyed believes that offering PE classes (99%), recess (98%), and after school programs (95%), and offering healthy foods (99%) while limiting unhealthy foods (96%) are important aspects of a comprehensive school health program.<sup>47</sup> Ninety-four percent of parents believe that health and nutrition classes are as important as language arts, math and science, and a large majority of parents recognize the importance of these classes to their children's present and future health, as well as their academic success.<sup>48</sup> Respondents in this study wanted their children to possess the skills to pursue healthy, productive lives, and 8 out of 10 parents were prepared to get more involved to create a healthier environment in their school district.<sup>47</sup> Parents are



largely supportive of health education efforts in schools and recognize the positive impact of health on academic and social success.

## FUTURE CHALLENGES TO SCHOOL HEALTH EDUCATION

*Our findings are that school health education in most primary and secondary schools either is not provided at all, or loses its proper emphasis because of the way it is tacked on to another subject such as PE or biology, assigned to teachers whose interest and qualifications lie elsewhere. (President's Committee on Health Education, 1973)<sup>26</sup>*

Barriers to effective school health programs have existed since the beginning of public education in the U.S.<sup>13</sup> In 1973, when the President's Committee on Health Education crafted its report, the barriers to effective school health education included a lack of leadership and financial support, inadequate research and evaluation on school health programs, and poorly equipped instructors.<sup>26</sup> Many of these barriers remain today, nearly 40 years after publication of this report.

Despite a dramatic increase in the attention given school health during the 1980s and 1990s, resistance to continuing and expanding these programs has resulted in the loss of this momentum.<sup>49</sup> Americans or their appointed or elected representatives have yet to accept the importance of health for successful living, or understand that funding for health education is an investment in the future, a cost-effective way to lower health care spending in the next generation.<sup>50</sup> However, even when parents do understand the value and call upon schools to improve health instruction, it is often minimal, poorly organized and variably offered across schools and districts; moreover, evaluation of existing programs is sporadic.<sup>49</sup> Many school administrators and school boards fail to acknowledge health education as an important subject in the school curriculum. This lack of concern is reflected most often by assigning health education responsibilities to teachers who are not qualified. A member of our author team (BJS) while in attendance at the 1992 ACS National Action

Plan meeting recalls the following statement being made by a superintendent of schools in his presentation to meeting participants: "I have a football coach who has 27 winning seasons and I have to assign him to teach something, don't I?" The superintendent's response to keeping the coach on the payroll was to assign him to teach the health education classes. No doubt, other school health education authorities can attest to similar sorts of statements being made in their presence. Thus, some of the ongoing challenges for school health advocates have undergone little change since the 1950s.<sup>13,26</sup>

On an international level, the WHO and the United Nations have identified key challenges for promoting health in schools worldwide, including the need for a better evidence base as to what works in school health programs, the importance of improving implementation of programs to ensure their consistency, the need to reduce and eliminate health disparities that impede equal access to education, the opportunity to use the media to benefit these programs, and the difficulty of collaborating among different sectors.<sup>38</sup>

In the U.S., few schools have adopted the CSHP in its intended form, particularly in the areas of improving the school environment and enhancing parent and community involvement.<sup>29</sup> Whereas many schools and districts have implemented programs focusing on CSHE, which include individual skill development, few are able to address school health education in a holistic fashion, and most children are missing out on vital opportunities to practice and develop their health-related skills and behaviors.<sup>29</sup> Perhaps most discouraging are the unintended side effects of the *No Child Left Behind Act*,<sup>50</sup> which have led to increased pressures in the education system to improve academic performance through standardized testing in only the common core subjects. This focus on the core subjects of language arts, math and science, coupled with ongoing budget cuts in education, has led to the elimination and reduction of many school health and health education programs, despite health's contribution to academic achievement.<sup>40,51</sup>

In addition to these challenges, 21<sup>st</sup> century schools face the added difficulty of serving culturally diverse students in sensitive and appropriate ways.<sup>52</sup> This particular challenge is especially complicated for health educators, who must confront varying levels of health literacy, language barriers, religious issues, and varying cultural norms. Inner-city schools are affected disproportionately because of their strained resources and diverse student populations.<sup>53</sup>

Finally, the lack of political and financial support is, perhaps, the most important barrier to the implementation of quality CSHE and CSHPs. So often, funding is categorical, specific to one particular area, and political conservatism further restricts the subjects that are taught.<sup>29</sup> Communication problems between the domains of public health and education exacerbate these challenges, and health instruction is often left with little support, little funding and little chance to prove its value within the broader curriculum.<sup>54</sup> This underexposure, combined with mounting economic strife and increasing budget cuts offers little hope for improved funding and program implementation in the near future. Furthermore, the 2011 dismantling of DASH at the CDC threatens to hinder the progress of school health programs in the U.S., particularly with respect to influential and visible governmental leadership.<sup>55</sup>

However, the past decade has not been without some progress. In 2005, the American Heart Association (AHA) and the William J. Clinton Foundation joined forces to create the Alliance for a Healthier Generation.<sup>47</sup> In 2006, the Alliance created the Healthy Schools Program to help schools develop and implement nutrition and physical activity standards for students, teachers, and other staff members. The program began with 230 pilot schools in 13 states, and 900 additional schools signed up to use the program's online toolkit.<sup>47</sup> In its first year, the program reached 750,000 students and contributes to evidence supporting school health initiatives.<sup>56</sup>

Furthermore, Section 204 of the Child Nutrition and WIC Reauthorization Act requires all local education agencies par-



ticipating in federally funded school meal programs to create a school wellness policy to promote student health. The policy must include goals for nutrition and physical activity, nutrition guidelines for foods sold on campus, assurance that guidelines for reimbursable school meals will not be less restrictive than federal regulations, a plan for measuring implementation of the policy, and the involvement of parents, students, administrators, and the public in developing the policy. This law is the first successful effort to address the food and activity environment in the nation's schools.<sup>12</sup>

In 2008 the ACS, American Diabetes Association and the AHA issued a joint statement in support of school health education.<sup>57</sup> It states:

*The American Cancer Society, the American Diabetes Association, and the American Heart Association encourage quality school health education within all schools in the United States through the use of strategies such as:*

- Utilizing school health education programs that adhere to the recommendations from the National Health Education Standards;
- Employing highly qualified and effective health educators;
- Ensuring recommended health education instruction time at the elementary and secondary levels; [and]
- Having a national plan and budget to support school health education.

In conclusion, the potential for school health education to improve health and save lives is significant. If we as a nation want to keep children and adolescents healthy, it is important to find better ways to provide quality school health education.

## CONCLUSIONS

*When it is effective, comprehensive school health education maximizes the prospect that students will be able to make health-enhancing decisions which allow them to live artfully, to grow and develop naturally, and, ultimately, to become fulfilled human beings. To foster this ultimate end is the raison d'être of the place we call school. (John R. Seffrin, PhD, 1990)<sup>7(p. 155)</sup>*

Children and youth are a captive audience at school for health education programs. The school setting is the only place that provides continual exposure to the information and opportunities for skill development that children need to form healthy habits at each stage of growth.<sup>6,7,11,12</sup> About 95% of American children ages 5 to 17 are enrolled in school and 48 million students attend 94,000 public elementary, middle and secondary schools; moreover, an additional 5.3 million students attend 30,000 private schools, accounting for one-fifth of the nation's population on any given day.<sup>8,12</sup> An effective, coordinated school health program has the potential to impact not only all of these children, but also teachers, administrators, and other staff members, as well as children's families and the communities in which they live.<sup>7,58</sup> Furthermore, poor health conditions of children and their families negatively impact academic achievement.<sup>51</sup> Education and health are interdependent systems,<sup>1</sup> with health status impacting academic achievement, and academic status impacting health in childhood as well as adulthood. Racial and ethnic disparities in childhood and adolescence persist into adulthood and become bonded to academic success and dropout rates; moreover, chronic disease development in later years is often a byproduct of this combination of factors.<sup>1,10</sup> Improving graduation rates is one of the most cost-effective ways to reduce health disparities, and many health behaviors, such as drug and alcohol abuse, violence and sexual risk taking, interfere with school performance and lead to school dropout.<sup>1,52</sup> Educators, policy makers and the public agree that the school system should graduate students proficient in the core subjects, socialized and able to work with others, and skilled at healthy behaviors.<sup>12,52</sup> A comprehensive school health program is the single most cost-effective strategy for improving the health of the population and reducing healthcare costs now and in the future.<sup>8,11</sup>

In 1973, the President's Committee on Health Education recommended that health education programs be developed and implemented at each grade level and

developmental stage to reduce morbidity and mortality through early individual behavior change, particularly in the first 10 years of life.<sup>26</sup> Nearly 40 years later, education and public health continue to struggle to coordinate advocacy efforts in the name of comprehensive school health education, despite decades of research showing these programs effectively reduce risk behaviors and maintain health among students.<sup>59</sup> Additional surveys and polls of parents, teachers and students demonstrate support for health education. The school is the only place that can provide this level of support to children<sup>7</sup> but the school is failing students at an increasingly growing rate. Based on evidence of a growing need for health initiatives targeting unhealthy behaviors in young children, public schools must take steps to reduce childhood obesity and other alarming health trends among the nation's youth. Developing and implementing school health policy and quality health education curricula are critical to improving the eating and physical activity habits of young children and the sexual risk behaviors and substance abuse activities of older youth.<sup>3</sup> To accomplish these things, decision makers, including school administrators, parents and the general public must be informed and aware of the importance of school health. Government agencies at local, state and federal levels must work together with community groups and service providers to supply the resources and information to implement sustainable health education programs. Specifically, this joint effort will require the collaboration of education and public health authorities to create effective programs that reflect: (1) the evidence base from decades of school health studies; (2) the evaluation efforts that have provided ample information on what works at each grade level; and (3) the diverse populations that schools serve in the 21<sup>st</sup> century.<sup>11,28</sup>

There are several emerging elements that may have a negative impact school health education in the next decade:

- Mandates such as the *No Child Left Behind Act* may continue to place extreme pressure on schools to improve students'



performance on standardized tests and other outcome measures.<sup>60</sup> Further legislation that exacerbates that pressure decreases the likelihood of CSHE and CSHPs improving their respective footholds.

- Seventy million Baby Boomers, among them, many of the nation's educators, will retire, leaving the leadership of schools to members of Generation X.<sup>60</sup> Whereas this generational shift may offer new leadership and new ideas, persons are likely to come into these positions without the background knowledge of decades of support for school health education by parents and students. Their uninformed position may be exacerbated by having had poor health education instruction themselves during their school experience. Assigning unqualified teachers to deliver poorly designed programs has created a negative cycle for health education that will be difficult to break.

- Although the past two decades have seen support for school health education from federal agencies, voluntary health organizations, professional societies and private companies, this support has focused on the PK-12 student environment. Concurrently, the health education profession has come increasingly close to losing its capacity to train school health education professionals in university-based professional preparation programs. The most significant loss is of university programs capable of preparing doctoral level school health education specialists. More of those programs have been dropped in the past 15 years than currently survive. If the last few programs do not survive university financial pressures, the traditional preparation of school health educators will be lost. What entity will be capable of replacing this loss and functioning effectively within the nation's education system?

- Depressed home and property values for the last five years, coupled with soaring unemployment levels during the same time frame have resulted in significantly fewer tax dollars to spend on education. These financial exigencies are likely to result in continued elimination of all non-core subject areas throughout the education

system. Health education is part of that downward trend now - will it continue to be a non-core subject?

- Changes in technology will alter and expand the ways students learn, necessitating innovation in teaching pedagogy and curricula - will health education have the funding to support this work at both the university and PK-12 levels?

These projections represent challenges as well as opportunities for the future of education in general, and health education specifically. Optimistically, as the economic and social landscape of the nation changes, priorities may shift to address increasing health problems among children and adults more aggressively; in a responsive and changing political climate, and with the accumulation and synthesis of decades of evidence in favor of school health education, there may emerge an environment rich for a comprehensive and sustainable school health program in the U.S. From the first notions of "hygiene" to the comprehensive school health education movement, the evidence base in support of school health has been building. It will be essential during the next decade, to take the messages available in the literature and cited in this paper, directly to the people through the popular press and new and emerging electronic communication systems. By exciting parents, grandparents and "friends of school health education" the potential for delivering quality programs may expand well beyond what we as education and health professionals can do on our own. Educators and public health professionals must join together to put years of research and evaluation, and thousands of pages of reports and studies, to work for the millions of children throughout the U.S. and the world over who deserve to have healthy, happy and productive lives.

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